55783-1

DRUG USE AMONG COLLEGE STUDENTS

In New York State

New York State
Division of Substance Abuse Services

March 1981

New York State
Division of Substance Abuse Services

Drug Use Among College Students in New York State

EXECUTIVE SUMMARY

The Division of Substance Abuse Services conducted a major survey of drug use and use of both drugs and alcohol among undergraduate students attending colleges in New York State in the spring of 1979. A stratified random sample of 22 colleges participated. Over 7,700 full-time undergraduate students completed a 10-page questionnaire that maintained the anonymity and confidentiality of the respondents. The sample was projected to reflect drug use among the 500,000 full-time undergraduate students enrolled in the state's 200 public and private four-year and two-year colleges.

Major Findings

Drug use is widespread among college students in New York State.

- Two in every three full-time undergraduate students enrolled in New York State colleges have recently* taken an illegal drug or used a legal drug nonmedically.**

*Defined as use in the six months prior to the survey or, more precisely, since September 1978.
**Defined as use without a prescription or beyond the prescribed dose.

- When severity of drug use is considered, 180,000 students (36 percent) are at least regular users.* Of these, 95,000 students (19 percent) are substantial or extensive users** of illicit drugs or legal drugs used nonmedically.

Student Characteristics Associated with Drug Use

Drug use varies by student characteristics:

- College men are more inclined than college women to use the drugs most popular on campus and to engage in more extensive forms of drug use. Nonmedical use of prescription drugs, however, is equally common among both sexes.

- White students score highest on most indicators of drug use, followed by Hispanic and black students.

- Freshmen and sophomores have slightly higher rates of use than juniors and seniors.

- Irrespective of campus living arrangements, students attending colleges in suburban New York City and upstate New York are more experienced in using drugs than students attending colleges in New York City.

Distribution of Drugs Among College Students

- During the six months prior to the survey, one in every 10 students has sold drugs, one in every three students has bought drugs, and one in every three students has given drugs to others.

- Drugs are more often bought or sold off-campus than on-campus. During one month prior to the survey, for instance:

  .. 20 percent bought cannabis off-campus vs. 14 percent bought on-campus;
  .. five percent sold cannabis off-campus vs. two percent sold on-campus.

*Defined as users of at least three drugs in the last six months and/or users of cannabis at least 10 times in the past month.
**Defined as users of at least seven drugs in the last six months and/or users of a non-cannabis drug at least four times in the past month.

- The most popular drugs used recently are:

Marijuana	291,000 students	(59 percent of responding students)
Hashish	138,000 students	(28 percent)
Stimulants*	103,000 students	(21 percent)
Cocaine	101,000 students	(20 percent)
Depressants*	57,000 students	(12 percent)
Hallucinogens	45,000 students	(nine percent)
Tranquilizers*	42,000 students	(eight percent)

- Many students combine drugs in a way that two or more different** drugs, or drugs and alcohol, affect them at the same time. Popular combinations used recently include:

Marijuana and Alcohol	206,000 students	(43 percent of responding students)
Marijuana, Alcohol and a Third Drug	72,000 students	(15 percent)
Cocaine and Marijuana	70,000 students	(14 percent)
Cocaine and Alcohol	64,000 students	(13 percent)
Stimulants and Marijuana	60,000 students	(12 percent)
Stimulants and Alcohol	58,000 students	(12 percent)

- Many college students have initiated drug use in the past year. Drugs that attracted the largest number of new users include:

Cocaine	44,000 students	(nine percent of responding students)
Stimulants*	35,000 students	(seven percent)
Marijuana	33,000 students	(seven percent)
Hashish	27,000 students	(six percent)
Nitrous Oxide	21,000 students	(four percent)
Hallucinogens	18,000 students	(four percent)
Depressants*	17,000 students	(four percent)

*Nonmedical use only.
**"Different" is defined in terms of pharmacological classifications.

- At least half of the students who buy illegal drugs also distribute them, i.e., sell them or give them away.

Problems Associated with Drug Use

- More than one in every five students admit to having problems as a result of using drugs.

- When students were asked to indicate whether they thought they were too dependent on any drugs they had used, 44,000 (nine percent) answered affirmatively. Of these, 35,000 (seven percent) reported dependence on cannabis.

- In the past six months, 114,000 students (23 percent) report being "high" on marijuana/hashish while in class. About 37,000 students (seven percent) report being "high" on other drugs.

- More than one in ten students report a decline in their grades as a result of cannabis use.

Levels of Drug Use

- Marijuana is the most popular drug used by college students in New York State. In the 30 days prior to the survey, 251,000 (50 percent) used marijuana. As a comparison, the survey also showed 166,000 students used cigarettes.

- Most students who use drugs at high levels also use alcohol. Among substantial and extensive drug users*, 45 percent consume more than one ounce of alcohol per day. Of those who never use drugs, only four percent drink at these levels.

- About 129,000 students (26 percent) might benefit from services geared to both alcohol and drug abuse problems. Only 11,000 students (two percent) might benefit from services primarily geared to drug or alcohol abuse.

*Defined as users of at least seven drugs in the last six months and/or users of a non-cannabis drug at least four times in the past month.

Interest in Services Related to Drug or Alcohol Use

- Students expressed strongest interest in special counseling for substance and alcohol abusers. Special medical and psychiatric services, on-campus treatment units, and off-campus substance abuse programs affiliated with the colleges are also welcome.

- The students who are most involved in using drugs and/or alcohol are least interested in having services provided for them.

- Special efforts may be required to reach the almost three in 10 students who might benefit from counseling or treatment services aimed at coping with problems related to their drug and/or alcohol abuse.

DRUG USE AMONG COLLEGE STUDENTS

IN NEW YORK STATE

New York State
Division of Substance Abuse Services

TABLE OF CONTENTS

Page

Introduction 1

Part I Drug Use Among College Students in New York State..... 8

Part II Drug Use and Alcohol Use Among College Students in New York State..... 39

DRUG USE AMONG COLLEGE STUDENTS
IN NEW YORK STATE

Introduction

The New York State Division of Substance Abuse Services conducted a major survey of drug use and use of both drugs and alcohol among undergraduate students attending colleges in New York State in the spring of 1979. Over 7,700 full-time students attending 22 colleges in the state participated in the study. The sample was then projected to reflect drug use among the 500,000 full-time undergraduate students enrolled in the state's 200 public and private four-year and two-year colleges.

Although college students have long been considered a group at particular risk of drug abuse, this study is the first statewide survey of students attending collegs in New York State. The report that follows will discuss the reasons for the study and the design of the survey, and then detail the findings.

A. The Rationale of the Study

College students are generally in the age range of those who are particularly susceptible to drug and alcohol abuse. The state, however, had never undertaken a thorough study of this specific group. General household surveys conducted by the Division of Substance Abuse Services sampled some college students, but not in numbers large enough to assess the general use in this population.

During this period of life, many students live away from home for the first time, coming under strong influence from peers. They may experience the strain of academic pressures and the need to make important career decisions. Furthermore, the range of social experiences is wider, contacts are made in more heterogeneous circles, and risk-taking behavior often finds approval. With increased freedom and anonymity, college years present situations that can promote drug and alcohol abuse.

A recent survey of students enrolled in grades seven through 12 in public and parochial schools throughout New York State revealed high levels of drug and alcohol abuse among the secondary school children, particularly high school seniors. Thus, a survey of college students is a logical continuation of the study of drug and alcohol use among young people in the state.

B. The Study Design

1. Sampling

The survey was based on a sample of 7,723 students randomly selected from 22 colleges, which in turn had been randomly selected from the colleges in New York State.

The selection of the colleges involved a series of steps. First, the state was divided into three regions: New York City (HSA Region 7)*, suburban New York City (HSA Regions 6 and 8)*, and upstate New York (HSA Regions 1 through 5).* The non-religious colleges in each region were further divided into three strata: large four-year colleges, small four-year colleges, and two-year colleges. To determine whether a college was large or small, the enrollment median was calculated for the four-year colleges within each region. Those that fell above the median were considered "large" colleges; those that fell below were considered "small" colleges. At least two colleges were randomly selected to represent each stratum in each region, yielding 21 colleges in the sample. One additional college was randomly selected to represent the religious colleges** in the state.

Students were selected on each of the 22 campuses in essentially two ways, depending on the preference of college administrators. In approximately half of the colleges, classes were randomly selected by the project staff to represent each year in each general category of study: humanities, sciences, social sciences, and applied studies, such as education and business. The survey was given to the students in the selected classes for completion during class time.

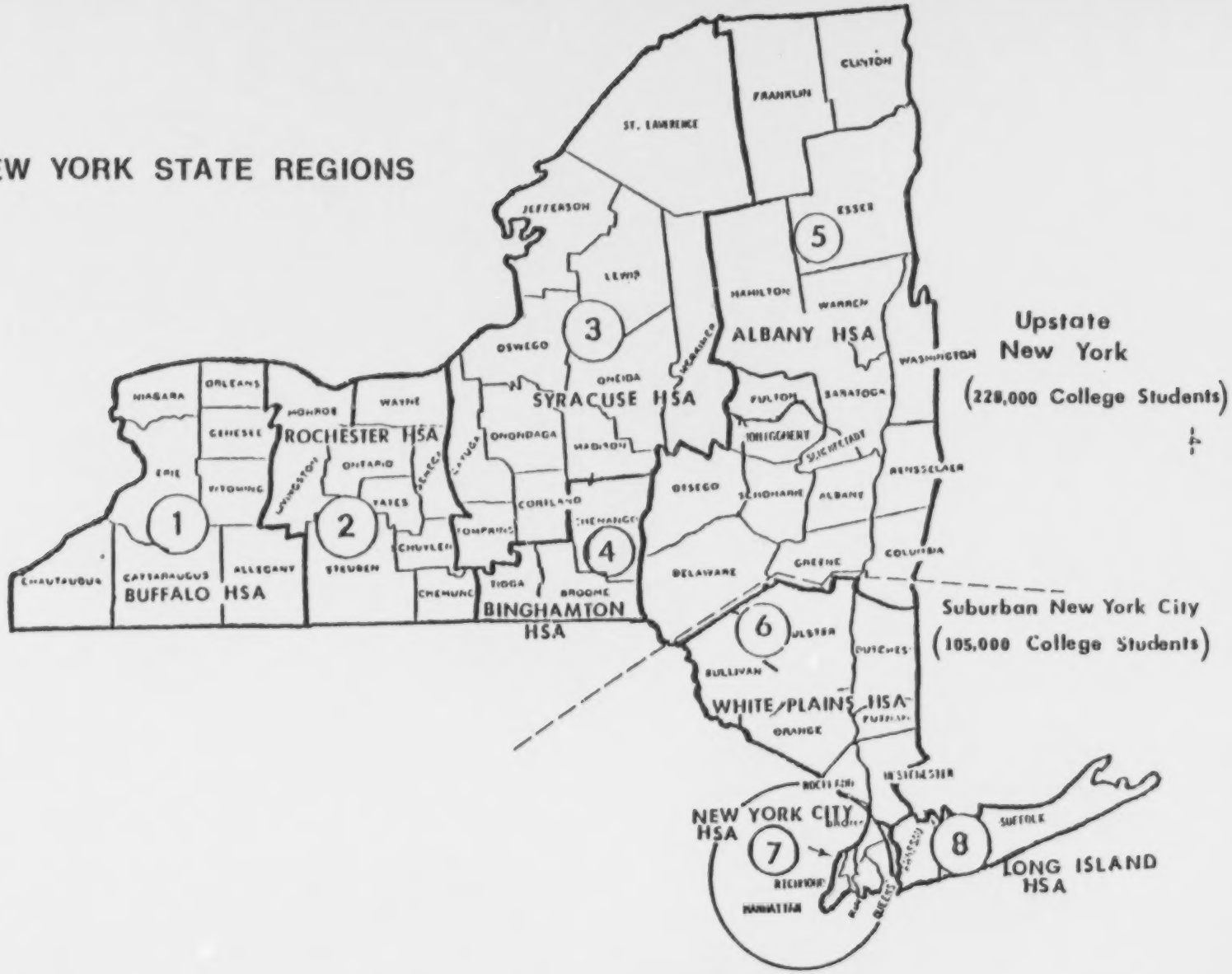
---

*See map on page 4.

**Defined as colleges with religious affiliation who reject Bundy aid.

DIVISION OF SUBSTANCE ABUSE SERVICES

NEW YORK STATE REGIONS



Upstate New York
(228,000 College Students)

Suburban New York City
(105,000 College Students)

New York City
(167,000 College Students)

In the other colleges where this strategy could not be followed, the project staff selected a number of traffic sites on the campus -- such as dining halls, student centers and residence halls -- where the surveys could be conveniently completed. A careful and concerted effort was made to select a significant number of these sites on each campus in order to obtain an adequate cross-section of students. Depending on the college enrollment, the samples ranged in size from 175 to 900 students. The average sample size was 360 students per college.

In presenting the findings, the sample of 7,723 was statistically projected to reflect drug and alcohol use among the 500,000 full-time undergraduate students enrolled* in colleges in New York State. In short, each student in the survey was representing a number of his or her peers enrolled in colleges located in that region of the state.

2. Questionnaire

A 10-page questionnaire was developed by the project staff. It was printed in a format suitable for machine optical scanning so that processing could be easily accomplished. A research consulting firm outside New York State was subcontracted to print and process the questionnaires. The questionnaire was designed for self-administration; pretesting in a number of colleges showed that it could be completed in 30 minutes. Internal consistency checks were built in to permit elimination of frivolous and inappropriate responses.

*Projections were made to enrollment figures for the fall of 1976 obtained from the New York State Department of Education.

3. Procedures

In order to implement this survey, permission was secured from the selected college presidents, who in turn designated representatives to work with the project staff. The representatives assisted in the design of the questionnaire and made arrangements on their campuses for the administration of the survey.

Proctoring where necessary was done by teachers from the colleges and/or the representatives and their staff. A Spanish translation of the questionnaire was prepared for Hispanic students who had limited English comprehension.

The cover letter of the questionnaire assured students of the confidential nature of the survey, and students were carefully instructed not to write their names anywhere on the booklet. Participation was voluntary, and students were instructed to leave blank any questions they could not answer honestly.

After completing the questionnaires, students inserted them into sealed boxes which were returned to the Division of Substance Abuse Services and then shipped unopened to the consulting firm for optical scanning. The machine-read questionnaires were then converted to a computer tape which is the basis for the findings that follow. The original questionnaire booklets were destroyed by the consulting firm to assure confidentiality.

After receiving the data tape, the Division of Substance Abuse Services carefully analyzed student responses for indications of frivolous answers (e.g., marking all substances as if they had been used at the maximum level, giving an age of first use of several substances that was

older than current age, etc.), for inconsistent answers (e.g., giving a positive response to the ever use question, but responding "never" on the age of first use question, etc.), and for incomplete answers (leaving one or more drug or alcohol use questions blank). Thus, the data presented below are based upon a careful classification of each respondent as a user or nonuser. Students who could not be so classified are excluded statistically from the findings.

C. The Organization of the Report

The report that follows is divided into two parts. The first part analyzes drug use among college students; the second part considers the use of both drugs and alcohol and is a collaborative effort of the staff members.

PART I DRUG USE AMONG COLLEGE STUDENTS IN NEW YORK STATE

		Page
A.	Major Survey Findings	9
	1. Prevalence of Nonmedical Use (Tables 1 and 2)	9
	2. Medical and Nonmedical Use of Prescription Drugs (Table 3)	13
	3. Polydrug Use (Table 4)	16
	4. New Substance Use (Table 5)	19
	5. Substance Use Hierarchy (Table 6)	22
B.	Drug Use According to College Student Characteristics	25
	1. Drug Use by Region (Tables 7 through 9)	25
	2. Drug Use by Sex	30
	3. Drug Use by Ethnicity	32
	4. Drug Use by Year in College	33
C.	Behaviors and Perceptions Associated with Drug Use	34
	1. Acquisition and Distribution of Drugs (Table 10)	34
	2. Patterns of Use, Performance in School, and Perceived Effects	37

PART I

DRUG USE AMONG COLLEGE STUDENTS IN NEW YORK STATE

Drug use on college campuses in New York State includes a wide variety of illicit and prescription drugs, used both singly and in combination, occasionally by some and frequently by others. Prescription drugs are used both medically and nonmedically.

Part A states the major survey findings, including the prevalence of non-medical use of psychoactive substances, comparisons of medical and non-medical use of prescription drugs, recent combinational drug use and the spread of new substance use among students (incidence). Part B details drug use according to regions of the state and demographic characteristics of the students. Finally, behaviors and perceptions associated with substance use are discussed in Part C, including distribution patterns, patterns of use, and effects attributed by students to the use of drugs.

A. Major Survey Findings

1. Prevalence of Nonmedical Use (Tables 1 and 2)*

Marijuana, hashish, cocaine and stimulants** are currently the most popular drugs on the college campus. More than half of the students

*Tables present the estimated numbers and percentages of students using various drugs; the text refers to percentages only, unless indicated otherwise.

**Although several of the drugs under discussion may be used medically (e.g., tranquilizers, depressants and stimulants), this section deals with nonmedical use -- use other than according to a physician's direction. Section 2 compares medical and non-medical use of drugs.

DIVISION OF SUBSTANCE ABUSE SERVICES
TABLE 1. SUBSTANCE ABUSE AMONG COLLEGE STUDENTS IN NEW YORK STATE
500,000 Full-time Undergraduate Students - Spring 1979

Type of Substance[a]	Never Used		Lifetime Use (Used at Least Once)		Response Unknown	Recent Use (Used Since School Began in Sept. '78)		Current Use (Used in Past 30 Days)	
	N	%	N	%	N	N	%	N	%
Marijuana	145,000	29	351,000	71	4,000	291,000	59	251,000	51
Hashish	272,000	55	219,000	45	9,000	138,000	28	99,000	20
THC	397,000	81	91,000	19	12,000	23,000	5	13,000	3
PCP (Angel Dust)	437,000	89	56,000	11	7,000	11,000	2	8,000	2
Hallucinogens	402,000	82	90,000	18	8,000	45,000	9	25,000	5
Cocaine	366,000	74	127,000	26	7,000	101,000	20	67,000	14
Amyl/Butyl Nitrite	420,000	86	68,000	14	12,000	27,000	6	12,000	2
Nitrous Oxide	408,000	84	79,000	16	13,000	39,000	8	22,000	5
Other Inhalants	464,000	95	23,000	5	13,000	8,000	2	4,000	1
Stimulants[b]	354,000	72	137,000	28	9,000	103,000	21	71,000	15
Depressants[b]	393,000	80	96,000	20	11,000	57,000	12	35,000	7
Tranquilizers[b]	406,000	83	82,000	17	12,000	42,000	8	27,000	6
Cough Medicine with Codeine[b]	334,000	69	152,000	31	14,000	93,000	19	35,000	7
Heroin	478,000	97	13,000	3	9,000	4,000	1	3,000	1
Other Narcotics[a]	436,000	90	50,000	10	14,000	28,000	6	13,000	3
Methadone (Illicit)	477,000	98	8,000	2	15,000	3,000	1	2,000	*%

Example of How to Read the Table: Among responding students, 351,000 or 71% have used marijuana at least once.
Note: The numbers reported in the table are underestimates since they do not include the non-respondents.

*% Less than 0.5%.

a Hallucinogens such as LSD, mescaline and psilocybin; other inhalants such as glue/solvents or sprays; stimulants such as amphetamines and diet pills; depressants such as barbiturates and methaqualone; tranquilizers such as Valium and Librium; other narcotics such as opium, morphine, and codeine.

b Refers only to the nonmedical use of prescription drugs, defined as use other than according to a physician's direction (i.e., in amounts beyond the prescribed dose and/or obtained from a nonmedical source).

DIVISION OF SUBSTANCE ABUSE SERVICES

TABLE 2. FREQUENCY OF CURRENT SUBSTANCE ABUSE AMONG COLLEGE STUDENTS IN NEW YORK STATE
500,000 Full-time Undergraduate Students - Spring 1979

Type of Substance [a]	Current Use (Used in Past 30 Days)		Used Once		Used a Few Times (2-3 Times)		Used Several Times (4-9 Times)		Used Repeatedly (10+ Times)		Used, Frequency Unknown
	N	%	N	%	N	%	N	%	N	%	N
Marijuana	251,000	51	27,000	6	43,000	9	47,000	10	122,000	26	12,000
Hashish	99,000	20	27,000	6	29,000	6	22,000	4	18,000	4	3,000
THC	13,000	3	6,000	1	2,000	*%	2,000	1	2,000	1	1,000
PCP (Angel Dust)	8,000	2	4,000	1	2,000	1	1,000	*%	1,000	*%	*
Hallucinogens	25,000	5	12,000	2	7,000	2	3,000	1	2,000	*%	1,000
Cocaine	67,000	14	21,000	4	21,000	5	12,000	3	11,000	2	2,000
Amyl/Butyl Nitrite	12,000	2	5,000	1	4,000	1	1,000	*%	1,000	*%	1,000
Nitrous Oxide	22,000	5	9,000	2	6,000	1	4,000	1	2,000	1	1,000
Other Inhalants	4,000	1	2,000	1	1,000	*%	**	*%	**	*%	1,000
Stimulants [b]	71,000	15	15,000	3	25,000	5	17,000	4	11,000	3	3,000
Depressants [b]	35,000	7	12,000	2	12,000	3	6,000	1	4,000	1	1,000
Tranquilizers [b]	27,000	6	9,000	2	8,000	2	5,000	1	4,000	1	1,000
Cough Medicine with Codeine [b]	35,000	7	10,000	2	12,000	3	6,000	1	5,000	1	2,000
Heroin	3,000	1	1,000	*%	2,000	1	**	*%	**	*%	**
Other Narcotics [b]	13,000	3	4,000	1	5,000	1	2,000	1	1,000	*%	1,000
Methadone (Illicit)	2,000	*%	1,000	*%	1,000	*%	**	*%	**	*%	**

Example of How to Read the Table: Among responding students, 27,000 or 6% have used marijuana once in the past thirty days.
Note: The numbers reported in the table are underestimates since they do not include the non-respondents.

*% Less than 0.5% ** Less than 500.

a Hallucinogens such as LSD, mescaline and psilocybin; other inhalants such as glue/solvents or sprays; stimulants such as amphetamines and diet pills; depressants such as barbiturates and methaqualone; tranquilizers such as Valium and Librium; other narcotics such as opium, morphine, and codeine.

b Refers only to the nonmedical use of prescription drugs, defined as use other than according to a physician's direction (i.e., in amounts beyond the prescribed dose and/or obtained from a nonmedical source).

have used marijuana since school began in September, i.e., six months prior to the survey (59 percent recent use). About one in every four students has used marijuana 10 or more times in the past month.

Far fewer students use hashish than marijuana: 28 percent have used it recently and four percent have used it 10 or more times in the past month.

About one in every five students has used cocaine since school began (20 percent recent users). The predominant current use pattern of cocaine is use on about two or three occasions per month. Prescription stimulants, used non-medically, are about as prominent as cocaine on today's college campuses (21 percent recent use).

The nonmedical use of depressants and tranquilizers is about half as prevalent as that of stimulants -- 12 percent of the students have recently used depressants and eight percent have used tranquilizers since school began. Only a small portion of the students have used these drugs during the month prior to the survey (seven percent for depressants, six percent for tranquilizers). Most of the current users have taken these drugs less than once per week.

Other drugs which few students used during the first half of their school year included hallucinogens (nine percent), nitrous oxide (eight percent), amyl/butyl nitrite (six percent), other inhalants (two percent), and PCP or angel dust (two percent). Use of these drugs on a weekly basis is rare: about one in every hundred students reports using such a drug four or more times during the month prior to the survey. Students are not apt to use illicit drugs such as heroin and "street" methadone*.

*Methadone used illegally.

Cough medicine with codeine was reportedly used by a substantial portion of the student population (19 percent recent use). This finding appears troublesome. While cough medicine may be misused by many students from time to time, it appears that inconsistent responses regarding this substance's medical and nonmedical use calls into question the actual volume of misuse.

The findings for THC (tetrahydrocannanbinol), one of the active ingredients of marijuana or hashish, need to be interpreted with caution. Five percent of students reported recent use of what they believed was THC. As in the case with certain kinds of other drugs obtained illegally (e.g., hallucinogens and stimulants), the chemical ingredients of these drugs are not necessarily those suggested by the name under which that drug is given or sold. In the case of THC, most specifically, it is the rule rather than the exception that THC is another drug -- usually PCP. Tetrahydrocannabinol becomes rapidly inactive when exposed to air and, with one exception, has not been found in "street" samples*.

2. Medical and Nonmedical Use of Prescription Drugs (Table 3)

Students were asked about their recent (six months) use of prescription drugs -- taken medically as well as nonmedically. Medical use was defined in the questionnaire as "according to a physician's direction in the amounts and at the time he or she directs for you";

*Cannabis - A Report of the Commission of Inquiry into the Non-Medical Use of Drugs. Information Canada, Ottawa 1972.

DIVISION OF SUBSTANCE ABUSE SERVICES

TABLE 3. MEDICAL AND NONMEDICAL USE OF PRESCRIPTION DRUGS AMONG COLLEGE STUDENTS IN NEW YORK STATE
500,000 Full-time Undergraduate Students - Spring 1979

Type of Substance[a]	Recent Medical Use Only (Since Sept. 1978)		Recent Nonmedical Use[b] Only (Since Sept. 1978)		Recent Medical and Nonmedical Use[b] (Since Sept. 1978)	
	N	%	N	%	N	%
Stimulants	8,000	2	84,000	17	19,000	4
Depressants	25,000	5	43,000	9	14,000	3
Tranquilizers	28,000	6	29,000	6	13,000	2
Cough Medicine with Codeine	121,000	25	20,000	4	73,000	15
Other Narcotics	25,000	5	17,000	4	11,000	2
Methadone	4,000	1	2,000	1	1,000	*%

Example of How to Read the Table: Among responding students, 19,000 or 4% have used stimulants both medically and nonmedically since September 1978.

Note: The numbers reported in the table are underestimates since they do not include the non-respondents.

*% Less than 0.5%.

a Stimulants such as amphetamines and diet pills; depressants such as barbiturates and methaqualone; tranquilizers such as Valium and Librium; other narcotics such as opium, morphine, and codeine.

b The nonmedical use of prescription drugs is defined as use other than according to a physician's direction (i.e., in amounts beyond the prescribed dose and/or obtained from a nonmedical source).

nonmedical use was defined as any other use of prescription drugs. Nonmedical use thus includes anything from self-medication according to accepted practice or excessive use of a drug for medical purposes to use for purposes of recreation or euphoric effects. This survey did not explore the various types of nonmedical use.

Prescription drugs of interest include stimulants, depressants, tranquilizers, narcotics, cough medicine with codeine, and methadone.

Use of these drugs under medical supervision, as legally required, is the exception in the case of stimulants. While two percent of the students have used stimulants only as prescribed, 17 percent have always taken them without medical supervision. Exclusive medical use of depressants (five percent) and tranquilizers (six percent) is more common; yet, a substantial number of students have used these drugs only on their own (nine percent depressants, six percent tranquilizers), especially Quaalude and Valium.

Cough medicine with codeine on the other hand is frequently used as prescribed -- 25 percent of the students are exclusive medical users as compared to four percent who have always used cough medicine on their own. Many of the students who use cough medicine as prescribed are also prone to use it nonmedically (15 percent).

Among other narcotic prescription drugs, Darvon is most popular (five percent nonmedical use). Students use narcotics either only under medical supervision (five percent), or exclusively on their own (four percent). Few students use them both ways, medically and on their own (two percent). Finally, about one percent of the students are using methadone only under medical supervision, while another one percent have only used "street" methadone.

3. Polydrug Use (Table 4)

The practice of mixing drugs in a way that two or more drugs, or drugs and alcohol, affect the user at the same time is referred to as polydrug use*, or more recently, as combinational use. Polydrug use is often an indication of more serious substance use. Not only are interactional effects of concern, but the user appears to have reached a more sophisticated level of substance use**. The time frame of interest was use in the past six months -- i.e., recent use.

Of the 11 combinations listed in the questionnaire, the use of marijuana together with alcohol is clearly the most widespread practice. The majority of recent marijuana users -- three of every four -- have been under the simultaneous influence of marijuana and alcohol (43 percent of the students). It is also common among students to combine both these substances with a third drug (every fourth recent marijuana user or 15 percent of the students). Considering the frequency with which many students have used marijuana together with alcohol (24 percent of the students have used at least 10 times) and the prevalence of other combinations including marijuana or alcohol, it apears that much of the combinational drug use is promoted by situational factors such as ready availability or habitual use of one or the other substance.

---

*Johnston, Lloyd, Defining the term "Polydrug Use." NIDA Research Monograph Series No. 2, October 1975, 36-39.

**It should be made clear that combinational use is distinguished from multiple drug use. The latter term refers to the ingestion of more than one kind of drug over a span of time.

DIVISION OF SUBSTANCE ABUSE SERVICES

TABLE 4. RECENT USE OF COMBINATIONS OF SUBSTANCES AMONG COLLEGE STUDENTS IN NEW YORK STATE
500,000 Full-time Undergraduate Students - Spring 1979

Combinations[a] of Substances[b]	Used Since September 1978										
	Total Use		Used Once		Used a Few Times (2-3 Times)		Used Several Times (4-9 Times)		Used Repeatedly (10+ Times)		Response Unknown
	N	%	N	%	N	%	N	%	N	%	N
Marijuana and Alcohol	206,000	43	17,000	4	36,000	7	37,000	8	116,000	24	15,000
Tranquilizers or Depressants and Alcohol	39,000	8	10,000	2	14,000	3	8,000	2	7,000	1	17,000
Stimulants and Alcohol	58,000	12	9,000	2	22,000	4	13,000	3	14,000	3	16,000
Cocaine and Alcohol	64,000	13	15,000	3	22,000	4	14,000	3	13,000	3	15,000
Stimulants and Marijuana	60,000	12	8,000	2	21,000	4	16,000	3	15,000	3	17,000
Cocaine and Marijuana	70,000	14	15,000	3	24,000	5	16,000	3	15,000	3	15,000
Hallucinogens and Marijuana	34,000	7	10,000	2	10,000	2	7,000	2	7,000	1	14,000
Inhalants and Marijuana	4,000	1	1,000	*%	2,000	1	**	*%	1,000	*%	10,000
Stimulants and Depressants	6,000	1	1,000	*%	2,000	1	1,000	*%	2,000	*%	17,000
Marijuana and Alcohol and a Third Drug	72,000	15	19,000	4	23,000	5	15,000	3	15,000	3	35,000
Other Drug Combinations	29,000	6	6 000	1	10,000	2	7,000	2	6,000	1	49,000

Example of How to Read the Table: Among responding students, 206,000 or 43% have used marijuana and alcohol since September 1978.

Note: The numbers reported in the table are underestimates since they do not include non-respondents.

*% Less than 0.5%. ** Less than 500.

a Refers to the use of two or more substances together with the result that they affect the person at the same time

b Hallucinogens such as LSD, mescaline and psilocybin; other inhalants such as glue/solvents or sprays; stimulants such as amphetamines and diet pills; depressants such as barbiturates and methaqualone; tranquilizers such as Valium and Librium; other narcotics such as opium, morphine, and codeine.

The most popular combinations include drugs which are most commonly used by students. Thus, cocaine or prescription stimulants are taken together with alcohol or marijuana by many of the students. Use of cocaine with marijuana (14 percent) is about as common as the use of cocaine with alcohol (13 percent). At least six percent of the students have used these combinations four or more times since September. The use of a legal stimulant with marijuana is as likely as its use with alcohol (12 percent each).

Tranquilizers or depressants such as Valium or sleeping pills are especially dangerous when used in combination with alcohol. These substances potentiate the effects of each other, and accidental overdoses are not uncommon. While few of the students have used such combinations repeatedly, eight percent have taken them recently.

Hallucinogens, such as LSD or mescaline, and marijuana have been used together by another seven percent of the students, yet frequent use of these combinations is uncommon. A relatively small portion of the students have combined stimulants with depressants (one percent), inhalants with marijuana (one percent), or have used other combinations not described in further detail (six percent).

While this college survey did not address motivational aspects of polydrug use, previous research indicates that polydrug users combine drugs to reduce or enhance the effects experienced from one substance. Cocaine or stimulants, for example, are known to be used in an attempt to counteract alcohol.

4. New Substance Use (Table 5)

New substance use, or incidence, indicates the extent to which drug use is spreading in a population. For the purpose of this study, incidence is defined as the number of students who have started using a given drug between January 1978 (somewhat more than a year prior to the survey) and the date of the survey. The number of new users therefore gives some indication of the spread of drug use in the college population.

The two major findings are that cocaine attracted the largest number of new users, and that the incidence of new use is generally highest among students attending colleges in upstate New York (see Section B. 1). Statewide, an estimated 44,000 students (nine percent) are new users of cocaine; this represents about one-third of all students who ever tried cocaine. Initiation into the nonmedical use of stimulants is also noteworthy; an estimated 35,000 new users (seven percent) represent about one-fourth of all stimulant users. Marijuana and hashish -- the substances of choice on the college campus -- attracted 33,000 (seven percent) and 27,000 (six percent) new users, respectively.

While cocaine has attracted the largest number of new users, marijuana use spread fastest among non-users. Close to one in every five students who had not used marijuana before January 1978 started using it in the following year as compared to about one in every ten students who had not yet tried cocaine. The chance that students who had not yet used prescription stimulants or hashish would start using these drugs is nearly as great as that of cocaine.

DIVISION OF SUBSTANCE ABUSE SERVICES

TABLE 5. NEW SUBSTANCE USE, SINCE JANUARY 1978, AMONG COLLEGE STUDENTS BY LOCATION OF COLLEGE
500,000 Full-time Undergraduate Students - Spring 1979

Type of Substance[a]	Total		New York City		Suburban New York City[c]		Upstate New York[d]	
	N	%	N	%	N	%	N	%
Marijuana	33,000	7	7,000	5	7,000	7	19,000	9
Hashish	27,000	6	5,000	3	5,000	5	17,000	8
THC	8,000	2	2,000	1	1,000	1	5,000	2
PCP (Angel Dust)	7,000	1	2,000	2	2,000	2	3,000	1
Hallucinogens	18,000	4	2,000	2	4,000	4	12,000	5
Cocaine	44,000	9	11,000	7	9,000	9	24,000	11
Amyl/Butyl Nitrite	11,000	2	2,000	1	2,000	2	7,000	3
Nitrous Oxide	21,000	4	4,000	3	3,000	3	14,000	6
Other Inhalants	2,000	*%	**	*%	1,000	1	1,000	1
Stimulants[b]	35,000	7	8,000	5	8,000	8	19,000	9
Depressants[b]	17,000	4	4,000	2	4,000	5	9,000	4
Tranquilizers[b]	10,000	2	3,000	2	2,000	3	5,000	2
Cough Medicine with Codeine[b]	2,000	1	**	*%	**	*%	1,000	1
Heroin	1,000	*%	**	*%	**	*%	**	*%
Other Narcotics[b]	5,000	1	1,000	*%	1,000	1	3,000	1
Methadone (Illicit)	1,000	*%	**	*%	**	*%	1,000	*%

Example of How to Read the Table : Among responding students enrolled in New York City colleges, 7,000 or 5% have started using marijuana since January 1978.

Note: The numbers reported in the table are underestimates since they do not include the non-respondents.

*% Less than 0.5%. ** Less than 500.

a Hallucinogens such as LSD, mescaline and psilocybin; other inhalants such as glue/solvents or sprays; stimulants such as amphetamines and diet pills; depressants such as barbiturates and methaqualone; tranquilizers such as Valium and Librium; other narcotics such as opium, morphine and codeine.

b Refers only to the nonmedical use of prescription drugs, defined as use other than according to a physician's direction (i.e., in amounts beyond the prescribed dose and/or obtained from a nonmedical source).

c The Suburban New York City Region includes Health Service Areas (HSAs) 6 and 8 (see map, page 4).

d The Upstate Region includes Health Service Areas(HSAs) 1 through 5 (see map, page 4).

The nonmedical use of depressants and tranquilizers is spreading at a much slower rate than that of stimulants. About one in every 25 students at risk has become a nonmedical user of depressants such as barbiturates and methaqualone (17,000 new users). In contrast, only about one in every 50 students at risk has begun using tranquilizers without medical supervision (10,000 new users). Depressants therefore have a much higher potential to be abused by students than tranquilizers. This finding is important in view of the fact that a similar number of students use these drugs as directed by a physician (see Table 3).

Cough medicine with codeine is the substance most commonly prescribed and used as directed; however, it attracted few new users (2,000). Other prescription narcotics also have a low potential to attract new users (5,000 students).

An estimated 18,000 students have started using hallucinogens, such as LSD or mescaline -- about one in every 25 students who had not used it before January 1978. Angel Dust (PCP) is not as popular, attracting only about 7,000 new users. However, in view of the high risk of psychotic episodes prompted by PCP, it is notable that one in every 50 students who had not yet tried it began using PCP.

Nitrous oxide has become a fairly popular drug of abuse with 21,000 new users, representing about one-fourth of all nitrous oxide users on campus. About half as many students (11,000) have tried amyl/butyl nitrite for the first time since January 1978. Other inhalants have attracted few new users (2,000 students).

Heroin and "street" methadone are the least popular substances on the college campus; statewide, an estimated 2,000 students are new users of these illegal narcotics.

5. Substance Use Hierarchy (Table 6)

In order to summarize substance use among students and to determine the probable need for services*, a hierarchy was devised that reflects the seriousness of nonmedical drug use. The criteria used to assign each student to one level of the hierarchy are listed below:

No Use - those who have never used drugs nonmedically.

Prior Use - those who have not used any drugs since September, but used at least one drug prior to that time.

Infrequent Use - those who have used one or two drugs since September.

Regular Use - those who have used three to six drugs since September, or
- those who have used marijuana or hashish ten to 39 times during the past month.

Substantial Use - those who have used seven to nine drugs since September, or
- those who have used marijuana or hashish 40 times or more during the past month, or
- those who have used heroin or "street" methadone four to 19 times during the past month, or
- those who have used other drugs four to 39 times during the past month.

---

*See Part II, Section D.

Extensive Use - those who have used ten or more drugs since September, or
- those who have used heroin or "street" methadone 20 or more times during the past month, or
- those who have used other drugs 40 or more times during the past month.

The higher the category in which the student is placed, ranging from no use to extensive use, the more likely the student is to have used many drugs and to have used them frequently during the past month.

Two in every three students have used drugs without medical supervision during the first six months of the academic year 1978/79. Although only two percent of all students have taken drugs extensively, about one-third of all students are regular or substantial users (17 percent each). Among users, infrequent use of drugs is most common (30 percent of all students). Only about one in every ten students have discontinued their nonmedical drug use prior to the new school year, and one in every five students have never used drugs nonmedically.

The following sections discuss survey findings by level of drug use according to this hierarchy.

DIVISION OF SUBSTANCE ABUSE SERVICES

TABLE 6. LEVEL OF SUBSTANCE USE AMONG COLLEGE STUDENTS BY LOCATION OF COLLEGE
500,000 Full-time Undergraduate Students - Spring 1979

	Total		New York City		Suburban New York City[b]		Upstate New York[c]	
	N	%	N	%	N	%	N	%
Total	500,000	100	168,000	100	104,000	100	228,000	100
No use	108,000	22	45,000	27	18,000	17	45,000	20
Prior Use	59,000	12	25,000	15	11,000	11	23,000	10
Infrequent Use	153,000	30	51,000	30	31,000	30	71,000	31
Regular Use	85,000	17	23,000	14	20,000	19	42,000	18
Substantial Use	84,000	17	20,000	12	21,000	20	43,000	19
Extensive Use	11,000	2	4,000	2	3,000	3	4,000	2

Example of How to Read the Table: Among responding students attending colleges in New York City, 25,000 or 15% are prior users.

Note: The numbers reported in the table are underestimates since they do not include non-respondents.

a The substance use hierarchy is a classification of studentswhich reflects the history and recency of drug use (prior to or after September 1978), as well as the extent (number and types of drugs) and frequency of use (see detailed explanations, p. 22).

b The Suburban New York City Region includes Health Service Areas (HSAs) 6 and 8 (see map, p.4).

c The Upstate Region includes Health Service Areas (HSAs) 1 through 5 (see map p. 4).

B. Drug Use According to College Student Characteristics

1. Drug Use by Region (Tables 7 through 9)

For analytic purposes, the colleges in the state were divided into three regions: New York City, suburban New York City, and upstate New York.* When drug use rates are considered by region, students attending college in suburban New York City and in upstate New York have dramatically higher use rates than students attending college in New York City. The table below contrasts the percentage of students in each region using the leading drugs of abuse in the six months prior to the survey.

Substance	N.Y.C.	Suburban N.Y.C.	Upstate N.Y.
	(Enrollment: 167,000)	(Enrollment: 105,000)	(Enrollment: 228,000)
Marijuana	48%	64%	64%
Hashish	18%	31%	34%
Cocaine	17%	24%	21%
Stimulants	15%	26%	23%

These regional differences are not accounted for by differences in living patterns among college students. These patterns themselves are interesting since students living in dormitories or on their own are more likely to have used illegal substances and/or prescription drugs nonmedically than students living with their parents. Nevertheless, students attending college in suburban New York City and upstate New York

*See map on page 4.

DIVISION OF SUBSTANCE ABUSE SERVICES

TABLE 7. SUBSTANCE ABUSE AMONG STUDENTS ATTENDING COLLEGES IN NEW YORK CITY
167,000 Full-time Undergraduate Students - Spring 1979

Type of Substance[a]	Never Used		Lifetime Use (Used at Least Once)		Response Unknown	Recent Use (Used Since School Began in Sept. '78)		Current Use (Used in Past 30 Days)	
	N	%	N	%	N	N	%	N	%
Marijuana	61,000	37	104,000	63	2,000	79,000	48	69,000	42
Hashish	110,000	67	53,000	33	4,000	30,000	18	22,000	14
THC	139,000	86	23,000	14	5,000	6,000	4	4,000	3
PCP (Angel Dust)	145,000	88	19,000	12	3,000	4,000	3	3,000	2
Hallucinogens	142,000	87	21,000	13	4,000	9,000	5	5,000	3
Cocaine	128,000	78	36,000	22	3,000	29,000	17	20,000	12
Amyl/Butyl Nitrite	143,000	88	19,000	12	5,000	8,000	5	4,000	3
Nitrous Oxide	144,000	89	17,000	11	6,000	8,000	5	4,000	3
Other Inhalants	154,000	96	7,000	4	6,000	3,000	2	2,000	1
Stimulants[b]	129,000	79	35,000	21	3,000	25,000	15	16,000	10
Depressants[b]	139,000	86	23,000	14	5,000	14,000	9	9,000	5
Tranquilizers[b]	141,000	87	22,000	13	4,000	12,000	7	8,000	5
Cough Medicine with Codeine[b]	110,000	68	51,000	32	6,000	31,000	19	13,000	8
Heroin	159,000	97	5,000	3	3,000	1,000	1	1,000	1
Other Narcotics[b]	150,000	93	12,000	7	5,000	7,000	4	4,000	2
Methadone (Illicit)	159,000	99	2,000	1	6,000	1,000	*%	**	*%

Example of How to Read the Table: Among responding students attending colleges in New York City, 104,000 or 63% have used marijuana at least once.
Note: The numbers reported in the table are underestimates since they do not include non-respondents.

*% Less than 0.5%. ** Less than 500.

[a] Hallucinogens such as LSD, mescaline and psilocybin; other inhalants such as glue/solvents or sprays; stimulants such as amphetamines and diet pills; depressants such as barbiturates and methaqualone; tranquilizers such as Valium and Librium; other narcotics such as opium, morphine, and codeine.

[b] Refers only to the nonmedical use of prescription drugs, defined as use other than according to a physician's direction (i.e., in amounts beyond the prescribed dose and/or obtained from a nonmedical source).

DIVISION OF SUBSTANCE ABUSE SERVICES

TABLE 8. SUBSTANCE ABUSE AMONG STUDENTS ATTENDING COLLEGES IN SUBURBAN NEW YORK CITY[a]
105,000 Full-time Undergraduate Students - Spring 1979

Type of Substance[b]	Never Used		Lifetime Use (Used at Least Once)		Response Unknown	Recent Use (Used Since School Began in Sept. '78)		Current Use (Used in Past 30 Days)	
	N	%	N	%	N	N	%	N	%
Marijuana	25,000	24	79,000	76	1,000	67,000	64	58,000	56
Hashish	51,000	50	51,000	50	3,000	32,000	31	24,000	24
THC	75,000	74	26,000	26	4,000	7,000	6	4,000	4
PCP (Angel Dust)	88,000	85	15,000	15	2,000	3,000	3	2,000	2
Hallucinogens	77,000	75	26,000	25	2,000	13,000	13	7,000	6
Cocaine	72,000	70	31,000	30	2,000	24,000	24	16,000	15
Amyl/Butyl Nitrite	84,000	83	17,000	17	4,000	7,000	7	3,000	3
Nitrous Oxide	84,000	83	17,000	17	4,000	8,000	8	5,000	5
Other Inhalants	96,000	95	5,000	5	4,000	1,000	2	1,000	1
Stimulants[c]	67,000	66	35,000	34	3,000	26,000	26	18,000	18
Depressants[c]	76,000	75	26,000	25	3,000	16,000	16	11,000	11
Tranquilizers[c]	78,000	77	23,000	23	4,000	12,000	12	8,000	8
Cough Medicine with Codeine[c]	68,000	67	33,000	33	4,000	21,000	21	7,000	7
Heroin	98,000	96	4,000	4	3,000	1,000	1	1,000	1
Other Narcotics	88,000	87	13,000	13	4,000	7,000	7	2,000	2
Methadone (Illicit)	98,000	98	2,000	2	5,000	**	*%	**	*%

Example of How to Read the Table: Among responding students attending colleges in Suburban New York City, 79,000 or 76% have used marijuana at least once.

Note: The numbers reported in the table are underestimates since they do not include non-respondents.

*% Less than 0.5%. ** Less than 500.

[a] The Suburban New York City Region includes Health Service Areas (HSAs) 6 and 8 (see map, p. 4).

[b] Hallucinogens such as LSD, mescaline and psilocybin; other inhalants such as glue/solvents or sprays; stimulants such as amphetamines and diet pills; depressants such as barbiturates and methaqualone; tranquilizers such as Valium and Librium; other narcotics such as opium, morphine and codeine.

[c] Refers only to the nonmedical use of prescription drugs, defined as use other than according to a physician's direction (i.e., in amounts beyond the prescribed dose and/or obtained from a nonmedical source).

DIVISION OF SUBSTANCE ABUSE SERVICES

TABLE 9. SUBSTANCE ABUSE AMONG STUDENTS ATTENDING COLLEGES IN UPSTATE NEW YORK[a]
228,000 Full-time Undergraduate Students - Spring 1979

Type of Substance[b]	Never Used		Lifetime Use (Used at Least Once)		Response Unknown	Recent Use (Used Since School Began in Sept. '78)		Current Use (Used in Past 30 Days)	
	N	%	N	%	N	N	%	N	%
Marijuana	59,000	26	168,000	74	1,000	145,000	64	124,000	54
Hashish	111,000	49	115,000	51	2,000	76,000	34	53,000	23
THC	183,000	81	42,000	19	3,000	10,000	4	5,000	2
PCP (Angel Dust)	204,000	90	22,000	10	2,000	4,000	2	3,000	1
Hallucinogens	183,000	81	43,000	19	2,000	23,000	10	13,000	6
Cocaine	166,000	73	60,000	27	2,000	48,000	21	31,000	14
Amyl/Butyl Nitrite	193,000	86	32,000	14	3,000	12,000	6	5,000	2
Nitrous Oxide	180,000	80	45,000	20	3,000	23,000	10	13,000	6
Other Inhalants	214,000	95	11,000	5	3,000	4,000	2	1,000	1
Stimulants[c]	158,000	70	67,000	30	3,000	52,000	23	37,000	17
Depressants[c]	178,000	79	47,000	21	3,000	27,000	12	15,000	7
Tranquilizers[c]	187,000	83	37,000	17	4,000	18,000	8	11,000	5
Cough Medicine with Codeine[c]	156,000	70	68,000	30	4,000	41,000	18	15,000	7
Heroin	221,000	98	4,000	2	3,000	2,000	1	1,000	*%
Other Narcotics	198,000	89	25,000	11	5,000	14,000	6	7,000	3
Methadone (Illicit)	220,000	98	41000	2	4,000	2,000	1	1,000	1

Example of How to Read the Table: Among responding students attending colleges in Upstate New York, 168,000 or 74% have used marijuana at least once.

Note: The numbers reported in the table are underestimates since they do not include non-respondents.

*% Less than 0.5%

[a] The Upstate Region includes Health Service Areas (HSAs) 1 through 5 (see map, page 4).

[b] Hallucinogens such as LSD, mascaline and psilocybin; other inhalants such as glue/solvents or sprays; stimulants such as amphetamines and diet pills; depressants such as barbiturates and methaqualone; tranquilizers such as Valium and Librium; other narcotics such as opium, morphine and codeine.

[c] Refers only to the nonmedical use of prescription drugs, defined as use other than according to a physician's direction (i.e., in amounts beyond the prescribed dose and/or obtained from a nonmedical source).

and living with their parents during the school year have higher drug use rates than students attending college in New York City and also living with their parents.* In fact, suburban and upstate students who live with their parents have higher rates of use than students attending New York City colleges who live in dormitories or on their own.

When serious drug use levels are considered, the trend continues -- more of the students attending college in suburban and upstate regions are classified at high use levels than are students attending college in New York City (Table 6). About 23 percent (24,000) of the suburban students and 21 percent (47,000) of the upstate students are substantial or extensive users, contrasted with 14 percent (24,000) of New York City students.

When new use of drugs is considered, students attending upstate colleges are the most likely to have initiated their drug use in the year prior to the survey (Table 5). New use or incidence may be analyzed from several perspectives; the proportion of new users may be calculated as a percentage of all students, as a percentage of only the users, or as a percentage of those at risk of new use. From all perspectives, upstate students have the highest initiation rates in the past year. Perhaps, students attending upstate colleges, more so than students going to college in New York City and suburban New York, were first exposed to illicit drugs and nonmedical use when they reached college.

*Approximately 57 percent of suburban and 23 percent of upstate college students live with their parents compared to 69 percent of students attending college in New York City.

The proportion of students who bought or sold drugs on-campus was also highest for upstate colleges.

When, however, county of permanent residence is considered,* students from suburban New York City counties -- independent of where their college is located -- have highest rates of drug use. For example, in the six months prior to the survey, 66 percent of these students used marijuana, 34 percent used hashish, and 25 percent used cocaine. Students with permanent residence in upstate New York are about as likely as students with permanent residence in New York City to have used drugs. Interestingly, students from upstate New York and from New York City who attend a college located in the suburban counties generally have higher drug use rates than their counterparts attending college elsewhere in the state.

2. Drug Use by Sex

Drug use among college students varies somewhat by sex. In general, college men are more likely to use the drugs most popular on the college campus than are college women. Considering recent use, for example, 24 percent of the male students have used cocaine (17 percent of females), 62 percent have used marijuana and 34 percent hashish (55 percent and 22 percent of females, respectively). Recent use of nitrous oxide is also more prevalent among men than women (11 percent vs. five percent).

---

*Data not presented in a table.

The nonmedical use of prescription drugs is about equally common among both sexes. However, male students are more likely to use stimulants only nonmedically (19 percent vs. 16 percent of females). College women, on the other hand, are more likely to be using prescription drugs only as indicated by a physician, especially tranquilizers (seven percent vs. four percent of male students), cough medicine with codeine (27 percent vs. 23 percent), other legal narcotics (seven percent vs. four percent), and barbiturates (six percent vs. four percent).

College men are also more likely to have initiated use of certain drugs in the past year. These drugs include cocaine (10 percent vs. eight percent of women), stimulants (eight percent vs. six percent) and nitrous oxide (six percent vs. three percent). An exception, however, is the first use of marijuana: eight percent of college women and six percent of college men are new users of marijuana.

When more serious drug use is considered, males predominate. For instance, men are more likely to mix drugs (polydrug use); 47 percent of the males are recent users of marijuana combined with alcohol as contrasted with 38 percent of females. When the drug use hierarchy is considered, more of the males than females are classified at high use levels: 21 percent (55,000) of college men and 17 percent (40,000) of college women are substantial or extensive users.*

---

*See detailed description of the drug use hierarchy on p. 22.

3. Drug Use by Ethnicity

Drug use varies more by ethnicity than by sex. The rate of drug use is higher among white students than among minority students. The contrast in rates of marijuana use characterizes the ranking: in the six months prior to the survey, 62 percent of white students, 48 percent of Hispanics and 46 percent of blacks have used marijuana.

Similarly, a larger proportion of whites have used prescription drugs nonmedically than have minority students. For example, 24 percent of white students report nonmedical use of stimulants compared to 16 percent of Hispanics and ten percent of blacks. Exclusive nonmedical use of prescription drugs is also more common among whites, followed by Hispanics and blacks.

Ethnic differences among new users resemble those among drug users in general. Not only are white students more likely to have used drugs, they are also most likely to have initiated their use in the past year. One exception, however, should be noted: whites and Hispanics are almost as likely to have initiated the nonmedical use of stimulants (eight percent and seven percent, respectively), but blacks are least inclined (three percent).

This same proportional predominance by whites appears when we look at combinational drug use. For example, marijuana in conjunction with alcohol is used by 47 percent of white students compared to 29 percent of Hispanics and 27 percent of blacks. Only one combination, marijuana and cocaine, is more popular among Hispanics (17 percent) than whites (15 percent); ten percent of blacks used this combination in the six months prior to the survey.

When, however, the substance use hierarchy is considered, the proportions of white students and Hispanic students who are at substantial or extensive use levels are almost equal: 20 percent (77,000 students) and 18 percent (5,000 students), respectively; 12 percent (6,000) of black students are at these levels.

4. Drug Use by Year in College

Students' drug use levels are related to year in college, but opposite to what might be expected: freshmen and sophomores are more likely to be at substantial or extensive use levels (20 percent or 68,000 students) than are juniors and seniors (16 percent or 26,000 students).

C. Behaviors and Perceptions Associated with Drug Use

1. Acquisition and Distribution of Drugs (Table 10)

Activities related to the acquisition and distribution of drugs, on-campus and off-campus, are important aspects of students' drug use. Students who are regular or heavy users are more likely to become involved in the illicit drug market than are occasional users. While some students use drugs only when offered to them, others buy them mainly for their personal use or to share them with friends.

Relatively few students buy drugs with the intent of further selling them. Students are more likely to buy drugs or distribute them outside the campus than on-campus. For instance, on-campus, during the month prior to the survey: 14 percent bought marijuana/hashish; two percent bought cocaine; and four percent bought other drugs for nonmedical use. In contrast, off-campus during the month prior to the survey: 20 percent bought marijuana/hashish; five percent bought cocaine; and seven percent bought other drugs for nonmedical use.

On-campus, 18 percent gave away marijuana/hashish and four percent sold it; one percent gave away cocaine and less than one half of one percent sold it; three percent gave away other drugs and one percent sold them. However, off-campus, 21 percent gave away marijuana/hashish and five percent sold it; three percent gave away cocaine and one percent sold it; four percent gave away other drugs and two percent sold them.

DIVISION OF SUBSTANCE ABUSE SERVICES

TABLE 10. ACQUISTION AND DISTRIBUTION OF DRUGS BY COLLEGE STUDENTS IN NEW YORK STATE

500,00 Full-time Undergraduate Students - Spring 1979

Activities	Drugs Bought, Given Away, or Sold Since September, 1978							
	Marijuana/Hashish		Cocaine		Other Illegal Drugs		Prescription Drugs	
	N	%	N	%	N	%	N	%
None	283,000	62	416,000	90	428,000	94	404,000	86
Buying Only	19,000	4	17,000	4	13,000	3	42,000	9
Buying and Giving	94,000	20	15,000	3	7,000	2	13,000	3
Buying, Giving and Selling	45,000	10	6,000	1	5,000	1	5,000	1
Giving Only	19,000	4	5,000	1	2,000	*%	4,000	1
Selling Only	1,000	*%	1,000	*%	1,000	*%	1,000	*%
Buying and Selling	1,000	*%	1,000	*%	1,000	*%	2,000	*%
Giving and Selling	1,000	*%	**	*%	**	*%	1,000	*%
Response Unknown	32,000		39,000		43,000		28,000	

Example of How to Read the Table: Among responding students, 19,000 or 4% have only bought marijuana/hashish.
Note: The numbers reported in the table are underestimates since they do not include the non-respondents.

** Less than 500.
*% Less than 0.5%

Additional findings on drug transactions since the start of school in September are presented in Table 10. The distribution patterns are somewhat different for marijuana/hashish than for other drugs. Most students who are buying marijuana also give it to others (20 percent of all students) or also sell (10 percent). Only four percent have bought marijuana/hashish exclusively for their own use. While about as many students buy cocaine for their own use (four percent), few students buy and give away cocaine (three percent) or sell it (one percent). As many as four percent of the students give away marijuana that they themselves had gotten free of charge (e.g., received at a party, given as a favor), while only one percent do so with cocaine.

Distribution patterns for other illegal drugs, such as psychedelics or PCP, are similar to those of cocaine (three percent buying only; two percent buying and giving away; one percent buying, giving and selling). The distribution rates for prescription drugs are similar to those for cocaine (three percent buy them and give them away; one percent also sell them). However, a fairly large number of students only buy prescription drugs for their own non-medical use (nine percent).

Few students sell drugs without also giving them away, and few sell drugs that they obtained free of charge. Furthermore, most students who buy or distribute cocaine or other illegal drugs have also bought or distributed marijuana and hashish. Transactions of prescription drugs are somewhat independent of those of illegal drugs, especially among students who only buy them.

As expected, there is a close relationship between distributing drugs and using them (data not shown in table). About two-thirds of the students who sell drugs also use drugs at substantial or extensive levels. In contrast, more than half of the students who have not bought or distributed drugs since school began in September have not used them since that time, and another third have used only infrequently. Although a few prior users continue distributing drugs (three percent of all students), it is highly unlikely to find a student who has bought or sold drugs without ever having used them.

2. Patterns of Use, Performance in School, and Perceived Effects

To gauge what behaviors and perceptions are associated with student drug use and what their effects are on students' general well-being and ability to function in everyday life, we look at performance in school, patterns of use, and perceptions of effects.

Regarding patterns of use, about half of the users take drugs as frequently during the week as on weekends or vacations, while 47 percent use more on weekends or during vacation time. The remaining three percent use more during the week than on weekends or vacations.

In the past six months, 23 percent of the students have been "high" on marijuana or hashish while in class, including 11 percent who have been "high" four or more different times. About seven percent have been "high" on other drugs while in class, with three percent more than three times.

Drug users are also more likely to have friends who also use drugs. Students' own drug use is highly correlated with friends' use, especially the use of marijuana and the nonmedical use of prescription drugs.

Grades are one aspect of students' level of performance in college. As expected, more of the students who are nonusers receive better grades than do substantial and extensive users. For instance, 25 percent of the nonusers report receiving mostly A's contrasted with 14 percent of the substantial and extensive users.

Students were asked if they believed marijuana and hashish use had positive or negative effects on them. About six percent of the students who use marijuana believed that their grades had improved as a result, while 13 percent said they thought their grades had declined. However, students generally attribute positive effects to marijuana and hashish use, and few negative effects were noted. Those who believed using drugs made them feel closer to people, feel more creative, or enjoy themselves more, etc. were usually those who were current drug users. Only 16 percent of the current marijuana users did not state any positive effects and 40 percent indicated three or more positive effects.

When students were asked to indicate whether they thought they were too dependent on any of the drugs they had used, nine percent (44,000 students) answered affirmatively. Of these, seven percent (35,000) reported that they were too dependent on marijuana or hashish. When students were asked about their friends' use, 20 percent of the students stated that at least one of their friends had a "drug problem." Asked about drug use on the college campus, 14 percent of the students stated that it is a major problem and 30 percent claimed it is a minor problem.

PART II RELATIONSHIPS BETWEEN DRUG USE AND ALCOHOL USE AMONG COLLEGE STUDENTS IN NEW YORK STATE

Page

A. Marijuana and Alcohol Use (Table 1)..... 40

B. Combinational Use of Drugs and Alcohol (Table 2) 42

C. Drug Use and Alcohol Use Hierarchy (Table 3)..... 44

D. Students' Interest in Services Related to Alcohol or Substance Use (Table 4) 46

E. The Need for Services 48

Part II

RELATIONSHIPS BETWEEN DRUG USE AND ALCOHOL USE AMONG COLLEGE STUDENTS IN NEW YORK STATE

Drug use and alcohol use on the college campus are strongly associated. In the past 30 days, most of the students whose use patterns are known have been using both (54 percent); a third of the students have been exclusively using alcohol (33 percent); and, a still smaller proportion have been using only drugs (two percent).* Most of the students who use drugs and alcohol have also used them together at the same time. The sections that follow explore the relationship between drug use and alcohol use, the combined use of both, the severity of use, and students' interest in services and treatment.

A. Marijuana and Alcohol Use (Table 1)

The most popular substances used by students in New York State colleges are marijuana and alcohol. In the 30 days prior to the survey, most of the 500,000 undergraduates have used at least one of them: 434,000 used alcohol and 251,000 used marijuana. As a comparison, the survey also showed 166,000 students had used cigarettes.

*Eleven percent of the students have used neither drugs nor alcohol in the month prior to the survey.

DIVISION OF SUBSTANCE ABUSE SERVICES
RESEARCH INSTITUTE ON ALCOHOLISM

TABLE 1 CURRENT ALCOHOL CONSUMPTION
AMONG NEW YORK STATE COLLEGE STUDENTS
BY
CURRENT MARIJUANA USE

Current Alcohol Consumption in the last 30 days (Average Ounces of Absolute Alcohol/Day)	Number of Times Used Marijuana in Last 30 Days								
	Never		1-3 Times		4-19 Times		20 or More Times		Response Unknown
	N	%	N	%	N	%	N	%	N
Total[a]	171,000	100	47,000	100	61,000	100	56,000	100	11,000
Abstained	58,000	34	3,000	6	2,000	3	2,000	4	2,000
One ounce or less	100,000	58	34,000	73	39,000	62	27,000	48	6,000
More than one ounce	13,000	8	10,000	21	22,000	35	27,000	48	3,000
Used, amount unknown	69,000		23,000		25,000		25,000		10,000

Example of How to Read the Table: Among responding students who did not use marijuana in the last 30 days, 58,000 or 34 percent abstained from alcohol in the last 30 days.

Note: The numbers reported in the table are underestimates since they do not include the non-respondents.

[a]The total includes only those students for whom the current alcohol consumption is known.

When the relationship between students' marijuana and alcohol use is considered, it appears that the more frequent the marijuana use, the greater the proportion of students who engage in heavier drinking (more than one ounce per day). Approximately half of the heaviest marijuana users (i.e., those who report using marijuana 20 or more times in the last 30 days), are currently drinking more than one ounce of absolute alcohol per day. Among those who are not current users of marijuana, 34 percent have abstained from alcohol and only eight percent are currently drinking more than one ounce of alcohol per day. Among those who used marijuana in the last 30 days, only three to six percent have abstained from alcohol. There is no support in these data for the "substitution hypothesis," which says that college students are using marijuana instead of alcohol, or vice versa. Those New York State college students who use a lot of marijuana also tend to use a lot of alcohol.

B. Combinational Use of Drugs and Alcohol (Table 2)

A significant proportion of all students use drugs in combination with alcohol. Since school began in September, 43 percent of the students have been under the simultaneous influence of marijuana and alcohol. More than half of these students (117,000) report using alcohol in combination with marijuana ten or more times during the school year.

A smaller number of New York State college students use alcohol together with amphetamines (12 percent) or with cocaine (13

DIVISION OF SUBSTANCE ABUSE SERVICES
RESEARCH INSTITUTE ON ALCOHOLISM

TABLE 2 FREQUENCY OF USING ALCOHOL IN COMBINATION WITH OTHER SUBSTANCES DURING THE CURRENT SCHOOL YEAR FOR NEW YORK STATE COLLEGE STUDENTS

Combinations Used[a]	Never Used or Not used in Current Year		Frequency of Use Since September, 1978						
			1 to 3 Times		4 to 9 Times		10 or More Times		Response Unknown
	N	%	N	%	N	%	N	%	N
Alcohol and Marijuana	279,000	57	53,000	11	37,000	8	116,000	24	15,000
Alcohol and Depressants or Tranquilizers	444,000	92	24,000	5	8,000	2	7,000	1	17,000
Alcohol and Stimulants	426,000	88	31,000	6	13,000	3	14,000	3	16,000
Alcohol and Cocaine	421,000	87	37,000	7	14,000	3	13,000	3	15,000
Alcohol, Marijuana and One Other Drug	393,000	85	42,000	9	15,000	3	15,000	3	35,000

Example of How to Read the Table: Among responding students, 53,000 or 11 percent used alcohol in combination with marijuana one to three times in the current school year.

Note: The numbers reported in the table are underestimates since they do not include the non-respondents.

[a]Depressants such as barbiturates and methaqualone; tranquilizers such as Valium and Librium; stimulants such as amphetamines and diet pills.

percent). In addition, 15 percent of the students report using alcohol, marijuana and one other drug at the same time; six percent, or an estimated 30,000 students, report this behavior as occurring four or more times during the school year.

Eight percent of the college students have used alcohol with barbiturates, sedatives, or tranquilizers. These central nervous system depressants may react with alcohol in a dangerous manner because the depressant effects of the two substances in combination can be greater than the sum of the depressant effects of either drug alone.

With increasing levels of drug use and alcohol use, the tendency to use drugs and alcohol in combination becomes greater (data not presented). Among extensive drug users, 67 percent have taken four or more different combinations of drugs with alcohol, while 42 percent have taken four or more different drug combinations without alcohol. Similarly, among heavy alcohol users, 25 percent have taken as many different combinations including alcohol, while six percent have taken as many combinations of drugs without alcohol. The untoward effects of combining drugs and alcohol make these practices extremely dangerous.

C. Drug Use and Alcohol Use Hierarchy (Table 3)

The Drug Use Hierarchy is a scale indicating the extent of the students' involvement with drugs other than alcohol. The relationship between alcohol consumption and the Drug Use Hierarchy

DIVISION OF SUBSTANCE ABUSE SERVICES
RESEARCH INSTITUTE ON ALCOHOLISM

TABLE 3 CURRENT ALCOHOL CONSUMPTION
AMONG NEW YORK STATE COLLEGE STUDENTS
BY
SUBSTANCE USE HIERARCHY

Alcohol Consumption In the Last 30 Days (Average Ounces of Absolute Alcohol/Day)	Substance Use Hierarchy[b]											
	No Use		Prior Use		Infrequent Use		Regular Use		Substantial Use		Extensive Use	
	N	%	N	%	N	%	N	%	N	%	N	%
Total[a]	78,000	100	40,000	100	105,000	100	58,000	100	60,000	100	7,000	100
Abstained	33,000	42	14,000	35	14,000	13	2,000	3	3,000	5	1,000	14
One ounce or less	42,000	54	22,000	55	75,000	72	34,000	59	31,000	52	2,000	29
More than one ounce	3,000	4	4,000	10	16,000	15	22,000	38	26,000	43	4,000	57
Used, amount unknown	30,000		19,000		48,000		27,000		24,000		4,000	

Example of How to Read the Table: Among students who never used drugs, 33,000 or 42 percent abstained from alcohol in the last 30 days.
Note: The numbers reported in the table are underestimates since they do not include the non-respondents.

[a]The total includes only those students for whom the current alcohol consumption is known.
[b]The substance use hierarchy is a classification of students which reflects the history and recency of drug use (prior to or after September 1978), as well as the extent (number and types of drugs) and frequency of use (see detailed explanations, Part I, p.22).

is dramatic indeed. Of those who never used drugs, only four percent are heavier drinkers; among extensive drug users, 57 percent are heavier drinkers. However, this group of extensive drug users accounts for only about one percent of the college population. As stated earlier, these data do not support the "substitution" notion that students who use drugs other than alcohol are less likely to drink excessively. Rather, excessive drinking and frequent use of other substances appear to be concomitant behaviors rather than separate phenomena.

D. Students' Interest in Services Related to Substance or Alcohol Use (Table 4)

Students were asked to indicate their interest in various services related to substance use or alcohol. Strong interest is expressed for special counseling for substance abusers and alcohol (13 percent of the students are extremely interested). Special medical and psychiatric services, on-campus treatment units, and off-campus substance abuse programs affiliated with the colleges are also welcome -- about a third of the students are very or extremely interested in them. Students are least interested in general information services, including pamphlets or referrals.

Invariably, the students who are most involved in using drugs (extensive Users) or alcohol (more than one ounce per day) are least interested in having services provided for them. For example, 27 percent of those who have more than one ounce of alcohol per day are

DIVISION OF SUBSTANCE ABUSE SERVICES
RESEARCH INSTITUTE ON ALCOHOLISM

TABLE 4 INTEREST IN ALCOHOL AND/OR SUBSTANCE USE RELATED SERVICES AMONG COLLEGE STUDENTS IN NEW YORK STATE

500,000 Full-time Undergraduate Students - Spring 1979

Extent of Interest	Information Services		Hotline		Medical and Psychiatric Services		Counseling		On-Campus Treatment Unit		Off-Campus College Affiliated Program		Rap Sessions and/or Encounter Groups		Educational Presentations	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Not At All Interested	120,000	27	110,000	26	109,000	24	98,000	22	110,000	27	117,000	27	123,000	28	119,000	27
Slightly Interested	93,000	21	75,000	17	69,000	16	61,000	14	75,000	17	75,000	17	84,000	19	91,000	21
Somewhat Interested	130,000	29	120,000	27	113,000	25	105,000	24	106,000	24	111,000	26	104,000	24	105,000	24
Very Interested	72,000	16	87,000	20	103,000	23	119,000	27	94,000	21	87,000	20	79,000	18	77,000	17
Extremely Interested	32,000	7	47,000	10	51,000	12	59,000	13	48,000	11	46,000	10	50,000	11	46,000	11

Example of How to Read the Table: Among responding students, 120,000 or 27% are not at all interested in information services.

Note: The numbers reported in the table are underestimates since they do not include the non-respondents.

very or extremely interested in medical services, as compared to 43 percent of those students who abstained from alcohol during the month prior to the survey. Similarly, 25 percent of the extensive drug users are interested in these services, compared to 37 percent of the students who have not abused drugs in the recent past. Other services such as telephone hotlines, student discussion or encounter groups, educational presentations or substance abuse programs affiliated with the college, elicited moderate interest.

E. The Need for Services

Considering the need for treatment and intervention services, our findings indicate that 28 percent of the students (141,000) might benefit from services. Services emphasizing either drug abuse or alcohol abuse are adequate for only a small number of these students. About 7,000 students have drinking problems* without currently using drugs, and 4,000 are using drugs at high levels** but currently abstain from alcohol. Most of the students in need of services, however, are using both, drugs and alcohol (129,000). Specifically, 30,000 (six percent of students) have recently used drugs as well as alcohol at high levels, and 38,000 (eight percent) have used alcohol at high levels and drugs at moderate levels.***

*Daily use of more than one ounce of absolute alcohol.
**Substantial or extensive drug use.
***Regular or infrequent drug use.

Another 33,000 (seven percent) have used drugs at high levels and alcohol at moderate levels.* Finally, 28,000 students (six percent) used drugs at high levels; however, the extent of their alcohol use could not be determined. In conclusion, almost three in 10 students might benefit from counseling or treatment services aimed at coping with acute or potential problems related to their substance abuse.

---

*Use of an average of one ounce of absolute alcohol or less per day.